

## Sulphur Springs Subwatershed Chatham, Cape Cod, Massachusetts

The Sulphur Springs Subwatershed is located in Chatham. It has an area of 742 acres. Route 28 runs through the northern portion of this watershed. The area south of Route 28 is dominated by residential development and Sulphur Springs and Bucks Creek, which are connected to Nantucket Sound.

Shellfishing in Bucks Creek has been conditionally approved (seasonal) since 1991. It is considered a limited resource area. Two storm drain pipes discharge into this area. Both are small in nature with limited contributing areas (2 catchbasins and 1 catchbasin). Testing has not shown significant impact to the resource area. A sub-area, Cockle Cove Creek, has been classified as prohibited since 1988. Cockle Cove Creek is a large wetland system with a small, narrow tidal creek and has no shellfish resources. Taking steps to open this area for shellfishing is not a priority of the town. Surveys have determined that the most likely source of summer/fall water quality problems in all of these areas is the extensive marsh system and accompanying wildlife/waterfowl (i.e. "natural").

Most of the Town of Chatham has municipal water. The older section of town, near Mill Pond, is publicly sewered. Sewers run up Main Street and Cross Street, and out of town to West Chatham. There are 450-500 sewer connections with five miles of gravity sewer and three miles of pressure sewer. The treatment plant can handle 440,000 gallons/day, though it is limited to 150,000 gallons/day under an administrative order. Currently the plant is processing about 120,000 gallons/day on an annual average. The effluent is being denitrified. The rest of the town is served by septic systems. Chatham is looking at alternatives for improving water quality through the development of its Comprehensive Wastewater Management Plan.

### Stewards:

- Chatham Water Watchers
- Friends of Chatham Waterways

### Studies conducted in the watershed:

- Water Quality Analyses of Coastal Embayments in Chatham, MA (Draft Report). May 2001. Conducted by Applied Coastal Research and Engineering, Inc., Applied Science Associates, Inc., and School for Marine Science and Technology.
- Cape Cod Atlas of Tidally Restricted Salt Marshes. 2001. Cape Cod Commission.
- Chatham Priority Open Space Project – 2001. The Compact of Cape Cod Conservation Trusts. Created a ranking list of undeveloped parcels that, if acquired as open space, would protect the most important natural resource areas in Chatham.

### Who is collecting water quality data and where:

- Chatham Water Watchers sample Sulphur Springs and Bucks Creek for dissolved oxygen, water temperature and clarity, water depth, salinity, nutrients, and chlorophyll a/phytoplankton.

### Management actions taken:

- The Sulphur Spring/Bucks Creek estuary was selected as a priority area for the Estuaries Project – Southeastern Massachusetts Embayment Restoration, funded by the state and UMass Dartmouth. The goal of the project is to develop critical nutrient loading thresholds for each embayment to aid in water resources planning and which will support federal requirements for the development of Total Maximum Daily Loads for impaired surface waters. This area will be evaluated in 2002.

### Subwatershed facts: (For data sources see Appendix)

- 21 E sites: 1, Cape Cod Mosquito Control on George Ryder Road
- Solid waste sites: unknown
- Zone IIs located in this watershed: unknown
- Interim Wellhead Protection Areas (IWPAs): unknown
- Percent of the undeveloped land that is protected (according to 1985/1990 data): 34.1%
- Acres of existing wetlands: 77
- Certified vernal pools: unknown
- Named freshwater ponds: Bearses, Black, Blue
- Named rivers or creeks: Bucks Creek
- Shellfish growing areas: Bucks Creek – conditionally approved since 1991. Cockle Cove Creek (a sub-area of Bucks Creek) has been prohibited to shellfishing since 1988.

### Priorities:

- Develop critical nutrient loading thresholds for Sulphur Springs/Bucks Creek to aid in water resources planning and the development of TMDLs.
- Implement those salt marsh restoration projects identified in the 2001 *Cape Cod Atlas of Tidally Restricted Salt Marshes* that have been evaluated and prioritized by the town. Sites are: Ridgevale Road restriction of channel between Cockle Cove Creek and Bucks Creek (Site CH-3) and Cranberry Lane restriction of unnamed channel off Bucks Creek (CH-4).
- Acquire open space. Parcels considered a priority for acquisition for water supply protection and development: Chatham Tracts 1, 3, 5, 8, 9, and 10 were ranked as having medium or high water supply development potential in the Cape Cod Commission's *Priority Land Acquisition Assessment Project* (April 1999). These tracts are located throughout the Town of Chatham.

#### Recreation:

Camping areas: none

Golf courses: none

Pathways and trails:

- Former Old Colony Railroad Right-of-Way
- [www.capecodcommission.org/pathways/trailguide.htm](http://www.capecodcommission.org/pathways/trailguide.htm)

Public access:

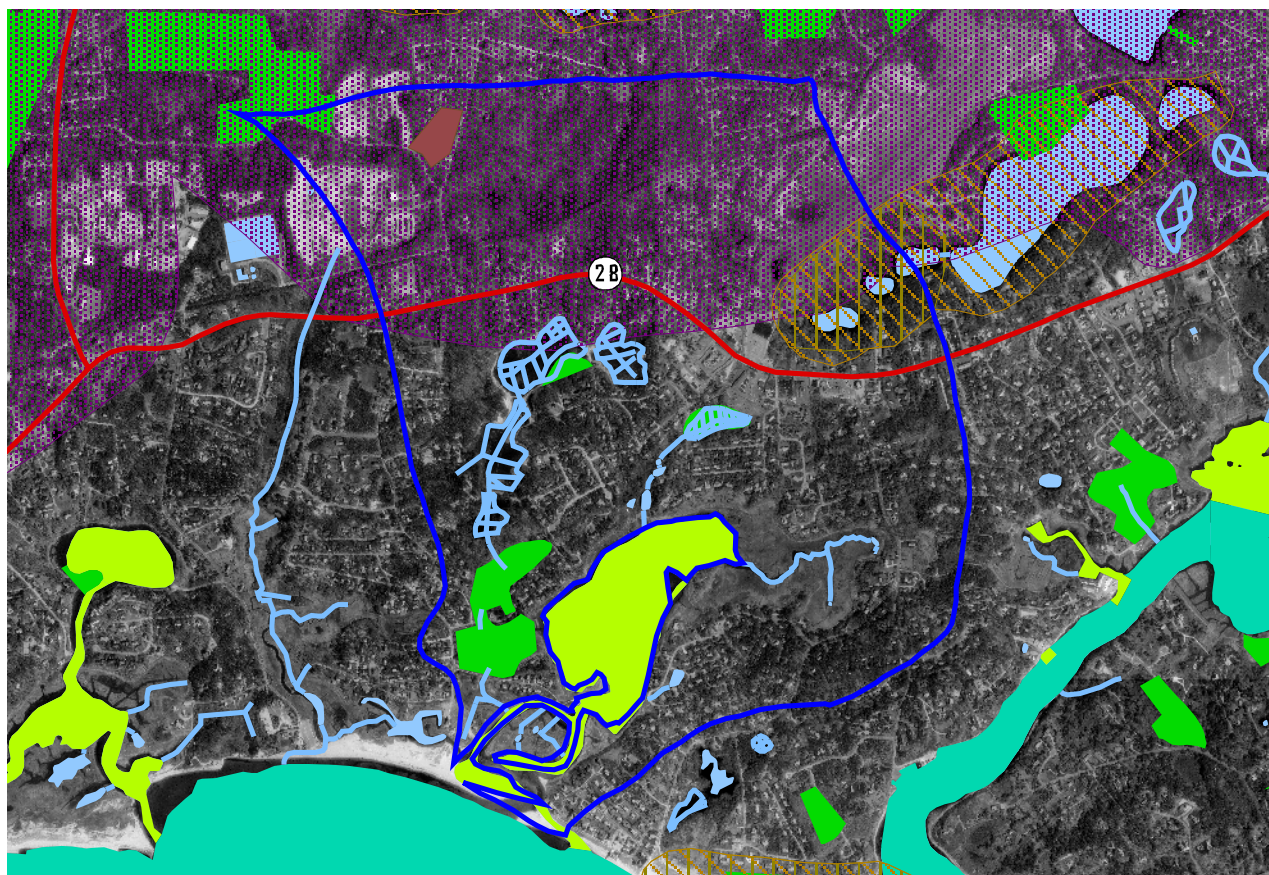
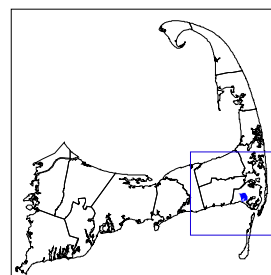
- [www.state.ma.us/dfwele/pab/pabSEmap.htm](http://www.state.ma.us/dfwele/pab/pabSEmap.htm)

Public beaches and landings:

- Ridgevale Beach
- Landing on Bucks Creek

# Sulphur Springs

Chatham, MA



## Watershed Resources



0 0.25 0.5 Miles

### Natural Heritage and Endangered Species Program Data

- Certified Vernal Pool
- Priority Habitats of Rare Species
- Estimated Habitats of Rare Species

### Groundwater Protection Areas

- Interim Wellhead Protection Area
- Zone II
- Solid Waste Facility

Watershed Boundary

Anadromous Fish Run

### Shellfish Growing Areas

- APPROVED
- CONDITIONALLY APPROVED
- MANAGEMENT CLOSURE
- PROHIBITED
- RESTRICTED

Open Space

Streams

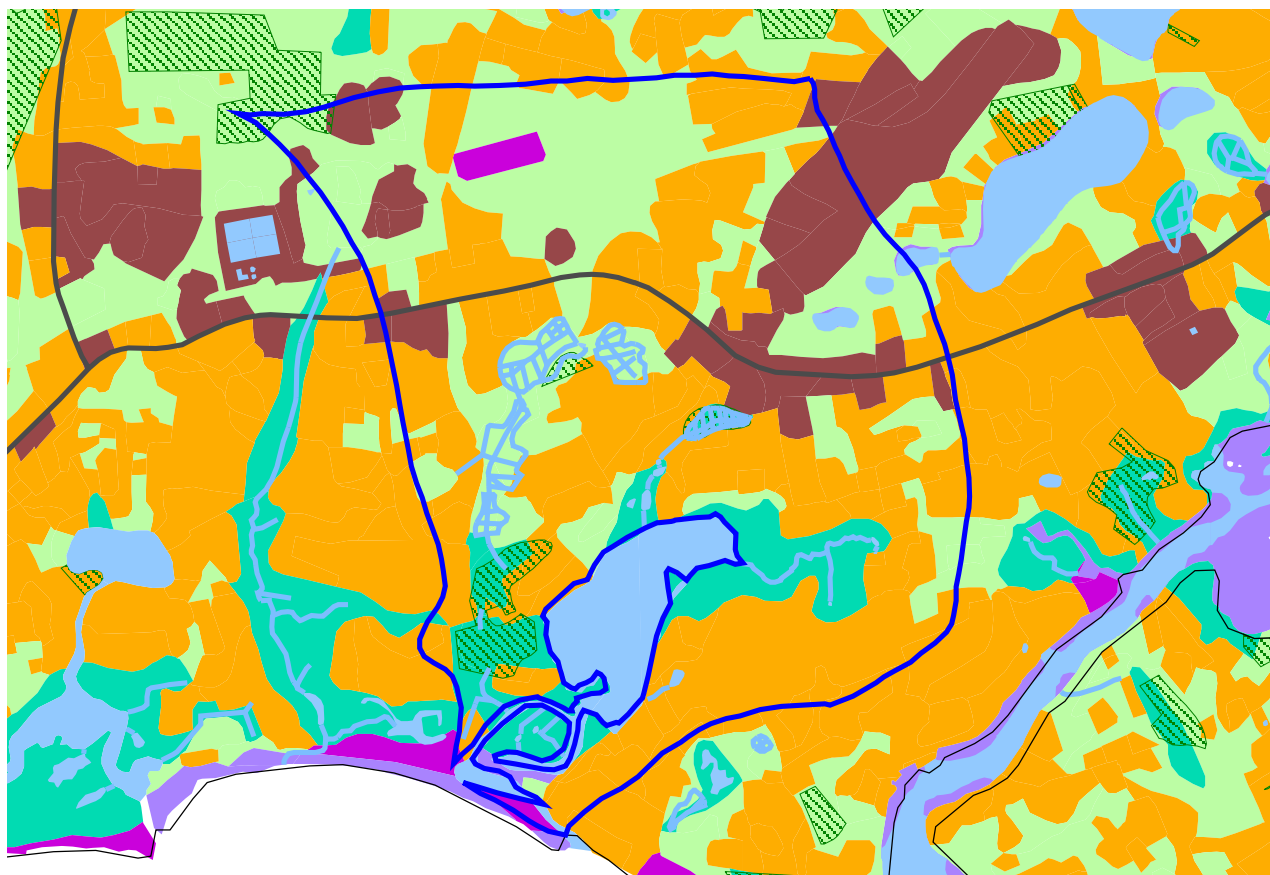
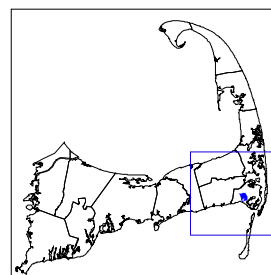
Ponds

Roads

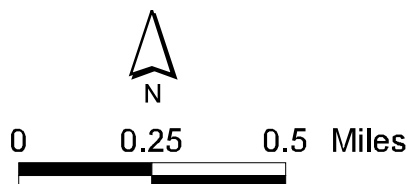


# Sulphur Springs

Chatham, MA



## Land Use



## Land Use

